Oak Wilt

Disease threatens oaks in the eastern United States

U.S. Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry

Description: Oak wilt is the most important disease of oaks in the eastern United States, where it occurs in both residential and forested areas. Insects known as picnic beetles carry a fungus that enters trees through open wounds, such as those caused by storms and pruning. Oak wilt can also spread when the roots of an infected tree contact those of a healthy tree. Oak wilt has killed millions of trees from Pennsylvania to Minnesota and south to Texas and South Carolina since the 1950s. The disease is gaining in importance as people move into oak dominated woodlands and as high-value forests become infected.

Key Issues:

- Diagnosis can be difficult since many agents, including oak decline, bacterial leaf scorch, anthracnose, and bur oak blight can also kill oaks.
- Many infection centers span multiple ownerships across large areas.
- Preventing new disease centers and controlling the spread of existing centers requires a coordinated effort among key partners and landowners.
- Priorities are to eradicate outlier infections and to control the disease in high value recreation areas.

Accomplishments:

- Implemented a nested PCR protocol to aid in diagnosis.
- Implemented relatively new control techniques (stump extraction) to complement root graft disruption using the vibratory plow.
- Reduced the incidence of disease in high value red oak forests on the Chequamegon/Nicolet and Huron/Manistee National Forests.
- Continued control activities on private and State lands in Michigan and in western Pennsylvania.
- Utilizing new molecular diagnostic techniques to evaluate the Nitidulid complex associated with oak wilt in western Pennsylvania discovered and treated newly symptomatic trees sentinel trees left standing in the eradication zone in New York.

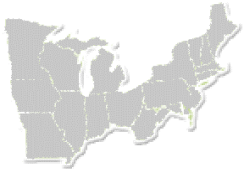
Budget History:

Oak Wilt Control FY 2014
(*$, thousands*)

	National Forest Systems	Michigan DNR	New York DEC
Suppression Totals	$58	$100	$30

Future Direction:

- Continue to validate newly developed oak wilt diagnostic tool.
- Develop a database to track incidence and spread.
- Improve early detection of outlier infection centers to facilitate eradication.



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